i-Nate Education

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Android

Course Duration: 60 hrs

Android Overview and History:- How it all got started, Why Android is different (and important)

Android Stack:- Overview of the stack, Linux kernel, Native libraries, Dalvik VM, Application framework

Android Components:- Activities, Services, Broadcast Receivers, Content Provider

SDK Overview:- Platforms, Tools, Versions, Creating your first project, The manifest file
 Layout resource, Running your app on Emulator.

Building UI with Activities:- Activities, Views, layouts and Common UI components, Creating UI through code and XML, Activity lifecycle, Intents, Communicating data among Activities

Advanced UI:- Selection components (GridView, ListView, Spinner), Adapters, Custom Adapters, Complex UI components, Building UI for performance, Menus, Creating custom and compound Views.

Notifications:- Toast, Custom Toast, Dialogs, Status bar Notifications,

Multithreading:- Using Java Multithreading classes, AsyncTask, Handler, Post, Writing an animated game,

Styles And Themes:- Creating and Applying simple Style, Inheriting built-in Style and User defined style, Using Styles as themes.

Resources and Assets:- Android Resource, Using resources in XML and code, Localization
 Handling Runtime configuration changes.

Intent, Intent Filters and Broadcast Receivers:- Role of filters, Intent-matching rules
 Filters in your manifest, Filters in dynamic Broadcast Receivers, Creating Broadcast receiver, Receiving System Broadcast, Understanding Broadcast action, category and data,
Registering Broadcast receiver through code and through XML, Sending Broadcast.

Data Storage:- Shared Preferences, Android File System, Internal storage, External storage, Introducing SQLite, SQLite Open Helper and creating a database, Opening and closing a database, Working with cursors Inserts, updates, and deletes, Network.

Content Providers:- Accessing built in content providers, Content provider MIME types, Searching for content, Adding, changing, and removing content, Creating content provider
Working with content files

Services:- Overview of services in Android, Implementing a Service, Service lifecycle, Inter Process Communication (AIDL Services)

Multimedia in Android:- Multimedia Supported audio formats, Simple media playback, Supported video formats, Simple video playback.

Location Based Services and Google Maps:- Using Location Based Services, Finding current location and listening for changes in location, Proximity alerts, Working with Google Maps, Showing Google map in an Activity, Map Overlays, Itemized overlays, Geocoder, Displaying route on map

Web Services and WebView:- Consuming web services, Receiving HTTP Response (XML, JSON), Parsing JSON and XML, Using WebView

Sensors:- How Sensors work, Using Orientation and Accelerometer sensors, Best practices for performance.

WiFi:- Monitoring and managing Internet connectivity, Managing active connections, Managing WiFi networks.

Telephony Services:- Making calls, Monitoring data connectivity and activity, Accessing phone properties and status, Controlling the phone, Sending messages

Camera:- Taking pictures, Media Recorder, Rendering previews

Bluetooth:- Controlling local Bluetooth device, Discovering and bonding with Bluetooth devices, Managing Bluetooth connections, Communicating with Bluetooth

Android Application Deployment:- Android Application Deployment on device with Linux and Windows, Android Application Deployment on Android Market